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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,676	08/08/2001	Willard A. Cutler	SP01-218	3657

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CORNING INCORPORATED
SP-TI-3-1
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EXAMINER

STRICKLAND, JONAS N

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 02/04/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,676

Applicant(s)

CUTLER ET AL.

Examiner

Jonas N Strickland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 10-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9 are, drawn to a method for making a monolithic metallic catalyst, classified in class 502, subclass 439.
 - II. Claims 10-14 are, drawn to a method for moderating reaction temperatures, classified in class 423, subclass 659.
2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions include Group I, which is directed to a method for making a monolithic metallic catalyst substrate, which comprises metal powders, an organic binder, and an extrusion step, while Group II is directed to a method of moderating the reaction temperature of a catalytically promoted exothermic or endothermic chemical reaction. The claims of Group II do not require the process steps for making the monolithic metallic catalyst substrate as recited in the claims of Group I. Therefore, the inventions of Group I and Group II are unrelated.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Kees van der Sterre on 1/24/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Harada et al. (EP 0450897 A2).

Harada et al. discloses a method for making a metallic monolith by mixing metal powders, an extrusion aid (oleic acid, p. 5, lines 48-50), and an organic binder to prepare a mixture, by forming the mixture into a shape of the desired honeycomb configuration (see abstract). Therefore, the honeycomb monolith disclosed by Harada et al. may be in the form of a wall flow or z-flow configuration, with respect to claims 8 and 9 based on the teachings of Harada et al. Harada et al. continues to disclose utilizing an extrusion die (p. 11, line 4). Harada et al. discloses carrying out a heat treatment under an oxidizing atmosphere and a reducing atmosphere in order to remove the carbon binder and to sinter the catalytic substrate (p. 5, line 52 – p.6, line 19). Harada et al. also discloses having a copper metal powder (p. 5, lines 31-32). Harada et al. continues to disclose wherein the honeycomb monolith has porosity between 0 to 50% by volume, with respect to claim 4 (p. 6, lines 29-32). Furthermore, Harada et al. discloses wherein the honeycomb substrate has a washcoat comprised of alumina and a catalyst comprised of a precious metal, with respect to claims 6 and 7.

9. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Beall et al. (WO 01/16049 A1).

Beall et al. discloses a method for making a monolithic metallic catalyst substrate comprising the steps of mixing of metal powder, which includes aluminum, along with an organic binder and an organic extrusion aide, such as metal stearate (see abstract and p. 9, lines 9-21). Beall et al. continues to disclose wherein it is known to use an extrusion die to form a honeycomb substrate preform (p. 2, lines 25-31). Beall et al.

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then continues teach carrying out a heating and firing cycle sufficient to remove the organic binder, and to sinter the extruded honeycombs (p. 11, lines 28-31).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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13. Claims 2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beall et al. (WO 01/16049 A1) in view of Harada et al. (EP 0450897 A2).

Applicant claims, with respect to claim 2, wherein the metal powder is copper metal powder. Beall et al. discloses an aluminum metal powder, but does not disclose having a copper metal powder.

Harada et al. discloses a method for making a metallic monolith by mixing metal powders, an extrusion aid, and an organic binder to prepare a mixture, by forming the mixture into a shape of the desired honeycomb configuration (see abstract). Therefore, the honeycomb monolith disclosed by Harada et al. may be in the form of a wall flow or z-flow configuration, with respect to claims 8 and 9 based on the teachings of Harada et al. Harada et al. continues to disclose utilizing an extrusion die (p. 11, line 4). Harada et al. also discloses having a copper metal powder (p. 5, lines 31-32). Harada et al. continues to disclose wherein the honeycomb monolith has porosity between 0 to 50% by volume, with respect to claim 4 (p. 6, lines 29-32). Furthermore, Harada et al. discloses wherein the honeycomb substrate has a washcoat comprised of alumina and a catalyst comprised of a precious metal, with respect to claims 6 and 7.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Beall et al., by using a copper metal powder in a process for manufacturing a monolithic metallic catalytic substrate, because Harada et al. teaches a process for producing a catalyst substrate, using a copper metal powder. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill in the art, would have expected a process for producing a metallic

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monolithic catalytic substrate using an organic binder, metal powders, and an extrusion aid as taught by Harada et al. to be similarly useful and applicable to the process for manufacturing a catalytic substrate as taught by Beall et al.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. EP 0197644; EP 0524438 A2; EP 0739868 A1; EP 0838317 A1; US Patent 5,492,883; US Patent 5,525,291; US Patent 5,925,308; US Patent 6,413,898.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH. 7:30-5:00, off 1st Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

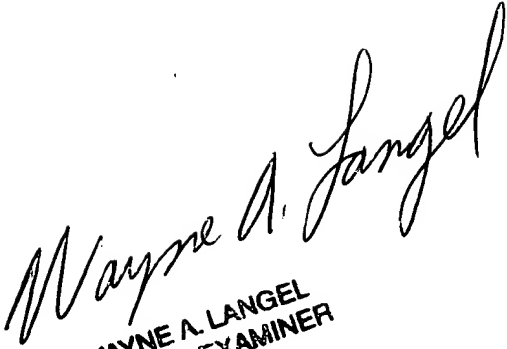
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0661.

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Jonas N. Strickland
January 25, 2003


WAYNE A. LANGEL
PRIMARY EXAMINER